

REMARKS/ARGUMENTS

Claims 34-46 are active in the case. Reconsideration is respectfully requested.

The present application related to a polyester resin.

Claim Amendments

The claims have been amended in order to improve upon the form and language of each claim. None of the amendments that have been made introduce new matter into the case. Entry of the amended claims into the record is respectfully requested.

Invention

The objective achieved in the present invention is to provide a polyester resin that is prepared by the polycondensation of reactants in the presence of an antimony compound and the suppression of the elution of the antimony compound from the resin. The polyester resin is produced by polycondensing a dicarboxylic acid component containing an aromatic dicarboxylic acid or its ester-forming derivative as the main component and a diol component containing ethylene glycol as the main component in the presence of at least an antimony compound and a phosphorus compound, via an esterification reaction or an ester exchange reaction. Suppression of the elution of antimony from the resin is exhibited when the polyester resin, that is in the form of particles having a number average particle weight of 24 mg, is immersed in hot water of 95° C for 60 minutes, whereby the amount of antimony eluted from the resin is not more than 1 µg per 1g of the polyester resin, as antimony atoms (Sb). The number of particles of polyester of at least 1 µm in the interior of the resin is not more than 20 particles/0.01 mm³.

Double Patenting Rejection

As to the matter of the double patenting ground of rejection that has been made with respect to U. S. Patent 6,703,474, such is believed to be improper because the present application is a divisional application of the stated U. S. Patent. Thus, the present application has been identified in the Patent Office as a separate invention from the invention described and claimed in U. S. Patent 6,703,474. Accordingly, the rejection is improper and certainly a terminal disclaimer is not necessary to overcome the rejection. Withdrawal of the double patenting ground of rejection is respectfully requested.

Claims 34-46 stand rejected based on the judicially created doctrine of obviousness type double patenting over Claims 1-21 of U. S. Patent 6,500,915. This ground of rejection is respectfully traversed.

Although it is clear that the claimed process of the patent is directed to the preparation of polyester resin by the condensation reaction involving a dicarboxylic acid and a diol component comprised mainly of ethylene glycol, the focus of the claimed process of the patent is the presence of a titanium catalyst in the reaction with the specification that the amount of titanium ions contained in the polyester resin must range from 0.002 to 1.0 mole based on one ton of the polyester resin. Further, the resin must have the properties of a certain intrinsic viscosity, a certain Hunter's "b" value and a certain residual acetaldehyde content. Clearly, there is absolutely no connection whatever between the claimed features of the patent and the presently claimed invention where the concept is the suppression of antimony elution from a polyester that contains antimony as an essential ingredient in the presence of at least an antimony compound and a phosphorus compound, which suppression is achieved with a polyester that is, for example, described in Claims 35-42. The amount of antimony eluted from the resin is very small at not more than 1 μg per 1g of the polyester resin, as antimony atoms (Sb). Moreover, the amount of impurities in the resin is very small among Sb

system resins. One of skill in the art, considering the claims of the patent, would in no way be led to the claimed aspect of the present invention where the objective is to suppress antimony elution from a polyester resin. Accordingly, the claims of the patent do not suggest the present invention as claimed and withdrawal of the double patenting ground of rejection is respectfully requested.

Claims 34-46 stand rejected based on the judicially created doctrine of obviousness type double patenting over Claims 1-15 of U. S. Patent 6,667,383. This ground of rejection is respectfully traversed.

The U. S. patent claims a polyester resin that is prepared by polycondensing a dicarboxylic acid component containing terephthalic acid or derivative thereof and a diol component that contains ethylene glycol in the presence of a catalyst of a titanium group element. The specific features of the claimed invention of the patent are that the content of polymerized components other than terephthalic acid and ethylene glycol in the polycondensation reaction must be not more than 4 mole % based on the total dicarboxylic acid content, and that the product polyester is such that when preparing a molded product from the resin by injection molding at 280° C, a sample of the resin having a thickness of 3.5 mm, when exposed to UV light is such that the difference between the absorbance of light of a wavelength of 395 nm and the absorbance of light of a wavelength of 800 nm is at least 0.08, and the difference between the absorbance of light of a wavelength of 500 nm and the absorbance of light of a wavelength of 800 nm is at most 0.05. Clearly, there is absolutely no connection between the polycondensation requirement of the process of producing a polyester resin and the UV light absorption characteristics of a specified thickness of a sample of the molded polyester of the claims of the patent and the claims of the present application where, as noted above, the objective is the suppression of antimony elution from a polyester that contains antimony as an essential ingredient in the presence of at least an

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antimony compound and a phosphorus compound, which suppression is achieved with a polyester that is, for example, described in Claims 35-42. There is no way whatever that the claims of the cited patent would lead the skilled artisan to the present totally different aspect of polyester resin preparation. Accordingly, the claims of the patent do not suggest the present invention as claimed and withdrawal of the double patenting ground of rejection is respectfully requested.

It is now believed that the application is in proper condition for allowance. Early notice to this effect is earnestly solicited.

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